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C O N T E N T S

Classified Index

Abstracts

Bibliography

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Vol. II July-August, 1932 No. 7

CLASSIFIED INDEX
of
Abstracts and Bibliography
(Arranged Alphabetically by Major Subject)

	Page
Fibres (Synthetic and Natural) and Fibre Analysis	
Angora Goat: The Coat of the	5
Basic Amino-Acids of Wool	4
Cellulose: Films and Fibres Derived from	11
Cellulose Acetate: Technology of	15
Cellulose Acetate Rayon: The Swelling of, by some Aqueous Solutions	12
Cellulose Acetate Treatment for Textile Insulation--Development of the Manufacturing Process	4
Cellulose: Uses of, Other Than for Paper	3
Cellulose Ethers, The	10
Cellulose Fibres: Influence of Sulfite Cooking Upon Weight of	3
Chemical Constitution of Wool and Silk (Introduction), (V)	3
Cotton Pigment: Nature of	14
Fibre Molecules and the Specific Viscosity of Their Solutions: LX. The Relation Between the Chain Length of	10
Hair Structure Relationships: Recent Studies of	3
Hollow Acetate Rayon	11
Natural Silk Solutions	15
Pink - Rot of Wool	10
Proteins with Reference to Wool and Silk, The	3
Raw Cotton: The Coloring Matters of	13
Raw Silk: Notes on the Development of a Classification of, Based on the Mechanical Test	15
Raw Silk Classification: Present Status of	15
Rayon: Flame Protectives for	11
Rayon: Lubrication of	13
Structure Viscosity Measurements of Cellulose Derivatives in Organic Solvents and the Effect of Additions Upon the Viscosities. II.	6
Synthetic Yarns Industry: History and Development of the	13
Vegetable Textile Fibres: Chemistry of the. II. The Particular Characters of the Principle Vegetable Textile Fibres.	13
Viscose Rayon: Desulphurising	6
Yarns and Fabrics	
Laundered Fabrics: The Testing of	14
Porosity of Textiles, The	15
Porosity - Primary Property of Textiles. V. Porosity of Fabrics and Penetration Problems	11
Rayons: Troubles in the Sizing and Dyeing of	12
Textile Fabrics: Minimum Wearing Strength of	8
Textile Fabrics: Occurence and Detection of Certain Faults in	12
Woolen Ring Spinning	15
Yarn Diameter and Fabric Structure	8

Chemical and Other Processing (Not Otherwise Classified)	Page
Acetate Rayon: New Dyes for	11
Acetate Silk: Application of Nacelaw Dyes to	13
Azo Dyes and Their Immediate Products. VIII, IX, X	11
Benzidine Dyes: The Substantivity of Some. A Contribution to the Theory of Substantive Cotton Dyeing	6
Bleaching With Hypochlorites	11
Cellulose: Swelling of, in Alkali	13
Cellulose Dyestuff Complex. I. Structure of Cellulose Fibres	10
Chemical Tests in the Wool Industry	15
Chemistry of Oxidation Fur Dyeing, The. II.	13
Cotton Treated with Hydrogen Peroxide: The Loss in Weight of, Compared to that in Whitening by Boiling and Chlorination	11
Cyanine Dyes and Related Compounds	10
Desizing of Rayon	14
Detergents: Action of, on Cotton and Linen Fabrics	7
Dicarbocyanines. New Series of Cyanine Dyes	10
Dry-Cleaning Industry: Chemicals in the	12
Dyeing: Electrocolloidal Theory of	14
Dyeing of Viscose with Direct and Vat Dyes: Present Status of our Knowledge of the	14
Dyes Derived from Thiohyantoin II	14
Emulsifying Agents for Technical Use	9
Fading of Dyes and Lakes, The	7
Highly Polmerized Compounds: LIX. Laws of Viscosity for	10
Indanthrene Dyes	12
Measurement of Color of Dyed Textiles. IX	11
Naphthol A.S. Dyes	12
Oleins: Evolution of, Used in the Textile Industry	13
Oxycellulose in the Dyeing of Cotton Piece Goods	14
Size for Rayon	11
Sizing of Rayon	11,14
Tinctorial Action of Substances Having a Surface Activity on Naphthols of the A.S. Group, The	10
Transmission Spectra of Dyes in the Colored State	8
Vat Dyestuffs: An Empirical Classification of	12
Weighting of Rayon	14
Wetting Agents: The Action of, on the Physical and Chemical Properties of Carbonizing Baths	9
Wetting Agents: Stability of, in Aqueous Solution	10
Wetting Agents: The Aromatic, II	12
Research Methods and Apparatus	
Absorption Spectra of Lignin Solution	9
Continuous Measurement of pH with Quinhydrone Electrodes	13
Extensibility and Tensile Strength of Fibres	12
Isoelectric Point of Gelatin: Methods of Determining the	12
Measurement of Whiteness with a Photo-Cell, The	8
Mercerization of Cotton: Detection of the	7
Microscope: New Design of	4
Moisture Percentages: A Short Method for Calculating	9
Polarising Microscope in Colloidal Chemistry, The	9
Rayon: Testing of	12
Size of Samples for Determining Fibre Properties, The	13
Viscose Rayon 'Spinnometer': Application	5
Viscosity of Starch: Determination of, Used for Dyeing and Sizing	13
Zyanin Dyes in Fibre Research	7
Economic and Miscellany	
Amino Acids: History of the Discovery of the	13
Automatic Shuttleless Loom	8
Combating Corrosion in the Textile Industry	13

ABSTRACTS

CHEMICAL CONSTITUTION OF WOOL AND SILK.- C. E. Mullin and H. L. Hunter.
Chem. Abs., 1931, 25, 5994 (from Textile Colorist, 1931, 53, 517-519).

Preface to a series of papers upon the chemical constitution of the keratins and fibroin, with references to the literature. (Copied complete from J. T. I., abstract section, May, 1932.) (S)

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THE PROTEINS WITH REFERENCE TO WOOL AND SILK.- C. E. Mullin and H. L. Hunter.
Chem. Abs., 1931, 25, 5995 (from Textile Colorist, 1931, 53, 599-603).

A general discussion of the constitution and properties of the proteins, with special reference to the keratins and fibroin. Bibliography. (Copied complete from J. T. I. abstract section, May, 1932.) (S)

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CHEMICAL CONSTITUTION OF WOOL AND SILK.- C. E. Mullin and H. L. Hunter.
Mell. Tex. Mo., 1932, 3, 1025 (from Textile Colorist, 1931, 53, 813).

The fifth chapter deals with the chemical constitution of fibroin and sericin, the authors discussing the formation of silk, the percentage of fibroin in raw silk, empirical formulas for fibroin, the complexity of fibroin, X-ray studies of fibroin structure, the constitution of fibroin, and the internal structure. Next is considered the chemical constitution of sericin, the waxy substance present in raw silk, the yellow pigment of raw silk and the ash of silk. Tables give hydrolysis products of fibroin from different sources and the analysis of various silks. (Copied complete from J. T. I. abstract section, May, 1932.) (S)

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USES OF CELLULOSE OTHER THAN FOR PAPER.- E. C. Jahn.
Paper Trade J., Dec. 10, 1931, 24.

Products obtained by such general processes as the solution and regeneration of cellulose and the esterification or etherification of cellulose are synthetic silks and cellulose acetates, nitrates, and ethers. The author concludes with a prediction as to future possible uses of wood cellulose. (Copied complete from Eastman Kodak Monthly Abstract Bulletin.) (S)

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INFLUENCE OF SULFITE COOKING UPON THE WEIGHT OF CELLULOSE FIBRES.- A. Lampen and I. Koskinen.
Zellstoff und Papier, Oct., 1931, P. 573-5.

The weight of a fibre is determined by counting the number of fibres in known weight pulp. This is accomplished through a series of dilutions and an average of 150 counts. It is found that prolonged sulfite cooking decreases the fibre weight almost proportionally to the chlorine number. (Copied from Eastman Kodak Monthly Abstract Bulletin, Mar., 1932.) (S)

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RECENT STUDIES OF HAIR STRUCTURE RELATIONSHIPS.- L. A. Hausman.
Biol. Abs., 1931, 5, 8-9, 2190 (from Sci. Monthly, 1930, 30, 258-277).

In this paper (a digest of several papers) it is pointed out that the microscopic structures of the mammalian, including the human, hair are related not to race, natural groups, or species, but to the diameters of the hair shaft. However, minute, apparently specific, generic, or family characteristics are discernible in some shafts of hairs of mammals below man; and these are being studied. Pigmentation characters are related almost wholly to the colour of the hair-shaft. Comparative studies of hair-shafts are of value in scientific as well as in legal and commercial applications. (Copied complete from J. T. I. abstract section, May, 1932.) (S)

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BASIC AMINO-ACIDS OF WOOL.- A. M. Stewart and C. Rimington.
J. Biochem., 1931, 25, 2189-92.

Only two determinations are upon record of the basic amino-acids of wool. These show little agreement. Marston in 1928 found 6.9 per cent of histidine whilst Vickery and Block (1930) give 0.66 per cent of histidine. Smaller differences in the amounts of lysine and arginine were also found. In order to clear up this discrepancy, several determinations have been very carefully carried out upon a batch of well sampled Australian wools, different methods being used when possible to determine each amino-acid. The results obtained are quite concordant and show approximately 0.6 per cent histidine, 2 per cent lysine and 5.7 per cent arginine. The findings of Vickery and Block are thus confirmed and those of Marston shown to be in error. (Copied complete from J. T. I. abstract section, May, 1932.) (S)

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CELLULOSE ACETATE TREATMENT FOR TEXTILE INSULATION--DEVELOPMENT OF THE MANUFACTURING PROCESS.- C. R. Avery and H. Kress.
The Bell System Technical Journal, April, 1932.

In the telephone plant of the Bell System a large quantity of textile insulated wire is employed for wiring the switchboards and connecting them to the incoming lead covered cables. The insulation on this wire varies with its use in the plant, common constructions in the past being tinned copper wire insulated with two servings of silk and one of cotton, or, where the requirements are not so exacting, enameled wire with two servings of cotton.

The constant demand for better electrical characteristics in telephone circuits has led the engineers of Bell Telephone Laboratories to seek an improved insulation for this wire as discussed in the contemporary paper, 'Cellulose Acetate Treatment for Textile Insulation, Engineering Development,' by E. B. Wood and D. R. Brobst. The old design wire was affected by the variation in the dielectric properties of the textile insulation with its moisture content which in turn varied with the surrounding humidity. It was found that the application of a thin film of cellulose acetate to the textile insulation considerably stabilized its properties.

When the surface of untreated wire is magnified, it is evident that it is a mass of extending fibres and when two conductors lie adjacent, these fibres interlace. Under humid conditions the textile becomes moist and the interlacing fibres afford a path for current leakage. The moist fibres also have a considerably higher dielectric constant than the dry fibres and the electrical capacitance between adjacent wires is increased, therefore, with high humidity. The fibres are ironed and sealed down by the cellulose acetate process. It is not claimed that the film is free from cracks, for cracks do form in the subsequent twisting and forming operations permitting moisture to enter, but no matter how moist the textile may become, no direct path for the leakage of current is formed as the fibres are separated from one another by two films of cellulose acetate. (S)

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NEW DESIGN OF MICROSCOPE.- A. S. Newman.
Phot. J., Aug., 1931, 318-20.

A microscope designed and built by the author for his own use, is of unconventional mechanical design, and is built up from sheet brass and one casting--the base. The sliding parts are accomodated by a single accurately made bar. The racks are sprung along their length, thus being able to take up wear automatically. The coarse adjustment is obtained by a rack on the lens mount, while the fine adjustment is fitted to the stage which also carries the condenser assembly and rack movement. The leveling of the instrument on any surface is simplified by providing an adjustment whereby the two rear legs are loosened

and then locked in position. The optical system is of normal design but has been made extremely flexible. The objectives are fitted into special mounts which are slipped into position and held by a three-point pressure suspension. A system of pivoted levers is adopted for holding the microscope slides, equal pressure on each side of the slide being obtained automatically. (Copied complete from Eastman Kodak Monthly Abstract Bulletin, Mar., 1932.) (S)

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THE COAT OF THE ANGORA GOAT.- J. E. Duerden and M. R. Spencer.
Exper. Sta. Rec., 1931, 64, 552 (from Union S. A. Dept. Agric. Bull.,1930,#83).

In this study, carried out mainly at the Wool Research Laboratory, Rhodes University College, Union of South Africa, an attempt was made to describe and interpret the covering of the Angora goat from birth to maturity. Kids were found to have a covering of hair arranged in spiral tufts, which varied in size, closeness and regularity of formation. Each tuft consisted of long, coarse, strongly medullated kemp fibres and short, fine woolly fibres. During the change from kid to adult most of the kemp fibres are shed within a few months, and the wool fibres increase in number and length until the adult fleece is composed almost entirely of wool. During the transformation period the tufts continue the spiral formation and eventually form the locks or ringlets of the adult fleece. The locks vary by having right- or left-handed spirals, and in a single lock one or more reversals may occur, which probably serve to prevent cotting. Some locks are perfectly formed, compact and free for the entire length of the fleece, but usually the contiguous locks are joined by strands of fibre or completely twisted around one another. A certain number of kemp fibres occur in practically all adult fleeces, but are highly objectionable. The wool fibres of the Angora goat are longer and stronger than those of Merino sheep. The mean thickness of the former varies from 28 to 38 μ and of the latter from 15 to 24 μ. The fibres of the Angora are usually nonmedulated. The fleece may also contain a third type of fibre kempy in the upper part and fine and woolly below. The wool fibres grow continuously with a certain proportion shed yearly, while the kemp is always shed. Complete shedding of the coat may occur in poorly bred Angoras and under adverse conditions of climate and nutrition. The results of some selective breeding work to improve the fleece of Angora goats are discussed. (Copied complete from J. T. I. abstract section, May, 1932.) (S)

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VISCOSE RAYON 'SPINNOMETER': APPLICATION.- S. Iwasaki.
Papers. Inst. Phys. Chem. Res. Tokyo, 1932, 18, 37-50.

The spinning capacity λ of a solution is given by the ratio V/v, where v is the velocity with which the solution flows out from the nozzle and V is the maximum peripheral velocity of the bobbin at which the thread can be wound without breaking. The spinnometer which has been designed for the measurement of this quantity consists essentially of a spinning nozzle and bath with a bobbin placed above. Arrangements are made for rotating the bobbin at any desired constant speed or with gradually increasing speed, for recording the speed of rotation, and for displacing the bobbin horizontally. Various applications of this instrument are indicated and some tests are described. Results showing the variation in λ with the time of ripening of viscose are given for four spinning baths of different composition and for different values of L/v, where L represents the length of action of the coagulating bath. The relation between μ (= V'/V, where V' is the actual velocity of winding on to the bobbin) and the tensile properties of the rayon are discussed. (Copied complete from J. T. I. abstract section, May, 1932.) (S)

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STRUCTURE VISCOSITY MEASUREMENTS OF CELLULOSE DERIVATIVES IN ORGANIC SOLVENTS AND THE EFFECT OF ADDITIONS UPON THE VISCOSITIES. II.- Y. Nisizawa.
Kolloid Z., Aug., 1931, 179-94.

A study was made of the effect of various substances on the viscosity of nitrocellulose. Water was found to increase the viscosity and extend the range of structural viscosity. Potassium iodide and ferric chloride first destroy the structure and reduce the viscosity, but later the viscosity is restored owing to the coagulating action of the salt. Most acids behave similarly but nitric acid decreases the viscosity. Benzine, benzene, and aniline first decrease the viscosity with increasing concentration, and then increase the viscosity of nitrocellulose in ether-alcohol or acetone. Phenol, urea, and camphor reduce the viscosity considerably. Oils act differently, linseed oil decreasing the viscosity. Resins decrease the viscosity, the structural viscosity region being lengthened. Ethyl alcohol increases the viscosity of nitrocellulose in acetone, amyl alcohol decreasing it. (Copied complete from the Eastman Kodak Monthly Abstract Bulletin, Mar., 1932.) (S)

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VISCOSE RAYON: DESULPHURISING.- Z. Kawata.
J. Cell. Inst., Tokyo, 1932, 8, (5).

The elimination of sulphur from viscose rayon by treatment with sodium sulphide solution, containing 1 per cent or more of glucose or 3 per cent of glycerin, is efficient and the rayon thus treated is of good softness. The addition of ammonium chloride to the sodium sulphide solution serves to protect the rayon from damage by alkali, but makes the elimination of sulphur incomplete. Sodium sulphide solution (3-4 per cent) may be used for desulphurising at 65-70° for a period of 10 minutes. The volume of the bath should be 20 times that of the sample with a 3 per cent solution, and 10 times that of the sample for a 4 per cent solution. Sodium sulphite does not damage rayon but its desulphurising action is weaker than that of sodium sulphide. Sodium hydroxide solutions containing 25-30 g. per litre may be used at 50° or higher temperatures but have an injurious action on the rayon. The presence of hemicellulose reduces the injurious effect. Sodium hydroxide solution containing a small amount of sodium sulphide is efficient and harmless. A solution containing 5-10 g. per litre of sodium sulphide and 25-30 g. per litre of sodium hydroxide gives the best results, if used at 50° C. for 15 minutes. The volume of the bath should be 30 times that of the sample. If the waste alkali from alkali-cellulose preparation is used for the sodium hydroxide, the process is very economical. (Copied complete from J. T. I. abstract section, May, 1932.) (S)

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THE SUBSTANTIVITY OF SOME BENZIDINE DYES. A CONTRIBUTION TO THE THEORY OF SUBSTANTIVE COTTON DYEING.- W. Schramek and E. Götte.
Kolloid Beiheft, 1931, 34, 218-69.

Dyeing by the purest substantive dyes follows the laws of adsorption. The adsorptive properties of pure substantive cotton dyes do not depend on their degree of dispersion; concentration appears to be the determining factor. The addition of electrolytes can change the adsorption from negative to positive, and bivalent electrolytes influence the substantive properties profoundly at concentrations at which they are often present as impurities in commercial dyes. These contain multivalent electrolytes which are difficult to remove in purification; these impurities not only affect the color of the dye but also the affinity for the fibre. (Copied from Chem. Abs., 1932, 26, 1790.) (W)

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THE FADING OF DYES AND LAKES.- John W. Ackerman.
J. Phys. Chem., March, 1932.

A very brief article running from pages 780 to 783 introduces the detailed account which includes tabulated results and numerous references to the literature. Much of the work has been done apparently at the Bureau of Standards and from a number of German sources references are given. Numerous references will be found in the American Dyestuff Reporter particularly in Volume 20. Not all the results given apply directly to textiles. Some of the material applies to pigments and to inks.

Tannic acid darkens on exposure to the carbon arc light, which accounts for the lakes darkening instead of fading.

Lakes made from the colored mordants are more stable to light than those from the colorless mordants as shown by the experiments on acid green, azogeranine, alkali blue and alizarin. This is because the colored mordants acting like color screens cut off some of the effective rays.

With the colorless hydrous oxides, the chemical potential of the dye absorbed on the mordant governs the rate at which the lake will fade.

The ageing of a mordant will affect the adsorption, the chemical potential of the dye on the mordant, and consequently the time of exposure necessary to cause fading.

Acid green precipitated on alumina by barium chloride is more stable to light than the lake precipitated by means of lead acetate. (S)

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ZYANIN DYES IN FIBRE RESEARCH.
Mell. Textilber., April, 1932, P. 181.

This is the second of two articles on this particular form of dye concerned largely with its uses in the micro-analysis of fibres. A number of very excellent photomicrographs are included in this article as well as in the previous article of the series which appeared in this same journal in March, 1932, Page 121. In the first of the two articles a particularly noteworthy photograph is found in Figure 8 which shows an unbleached hemp fibre treated with the dye. After mounting in glycerin, and undoubtedly as the result of some mechanical manipulation, the primary cell wall is shown turned back so that the secondary wall structure becomes visible. This is the first picture of this sort to come to the abstractor's attention. (S)

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DETECTION OF THE MERCERIZATION OF COTTON.- H. Willman.
Wollen-u, Leinen-Ind., 1931, 51, 57; Chim. et Inc., 26, 672.

The decolorized and desized sample is dyed with Congo Red in presence of sodium carbonate and chloride or sulfate, and compared with similarly treated mercerized and unmercerized cotton, when bleached with 5% calcium hypochlorite solution. They differ in rate of decolorization, the mercerized cotton being still orange-colored when the unmercerized is completely decolorized. (Copied from Chem. Abs., 1932, 26, 1792.) (W)

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ACTION OF DETERGENTS ON COTTON AND LINEN FABRICS.- E. Norlin and K. I. Skärblom.
Ing. Vetenskaps Akad. Handl., 1930, #100, 92 pp.

Caustic soda (1-2 grams per liter) causes an unexpectedly small diminution in strength if air is excluded. Sodium silicate solutions caused with cotton a small, and with linen a marked, loss of strength. The action of sodium borate solution depends on the velocity of decomposition. Marked loss of strength is caused by soaps containing highly unsaturated fatty acids, particularly if the drying is slow, but is avoided by the use of soft water. Retention of the calcium and magnesium soaps is evidently followed on drying by antoxidation. (Copied from Chem. Abs., 1932, 26, 1792.) (W)

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AUTOMATIC SHUTTLELESS LOOM.
Am. Silk and Rayon Jnl., July, 1932, P. 40-42.

A brief account of a new shuttleless loom developed in England and described originally in the Textile Manufacturer. Several interesting photographs of the mechanism are included but exact details are lacking. The loom is said to be a significant forward step in the design of weaving machinery. (S)

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MINIMUM WEARING STRENGTH OF TEXTILE FABRICS.- J. G. Williams.
Textile Manufacturer, June, 1932, P. 218.

A very brief paper giving what the author considers a means of determining at least in part, the life of a fabric which he defines as the difference between the original strength and the normal stress divided by the rate of deterioration, or of wear. He mentions the use of grab tests for tensile strength on a series of fabrics which had failed in use. Further discussion is concerned with the advantages and also disadvantages of the Mullin type bursting test machine. In mentioning wear tests he states that in frictional wear the end point should be when the worn fabric breaks down under the normal stress. He fails to mention in which direction this stress should be applied and this evidently is vital to the matter. For rayon the author gives a tensile strength of twenty pounds on a four-inch grab test as the minimum acceptable value when the rayon is wet. (S)

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TRANSMISSION SPECTRA OF DYES IN THE COLORED STATE.- W. C. Hoff and A.R.Peterson.
J. Phys. Chem., April, 1932.

Practically no data are available in the literature on the transmission of light by dyes in the solid state. Consequently, the following tests should be of interest. The detailed data together with several diagrams are given, and in summing up the results the authors state that transmission spectra are recorded of 32 azo, trithenylmethane, and xanthene dyes in the solid state. Solution is found to displace the absorption bands in the direction of shorter wave lengths. The data indicate a high degree of molecular aggregation in dry dyes. New evidence is afforded on the occurence and degree of tautomerism in dyes. (S)

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YARN DIAMETER AND FABRIC STRUCTURE.- P. Woodhouse and A. Brand.
Textile World, May 28, 1932.

The final article of a series which has been discussing the effects of yarn diameter on fabric construction together with the setting of fabrics and concludes in this issue with a discussion of yarn diameter formulae and with several tables giving yarn count and the diameters corresponding. Not only cotton yarns but silk, worsted, woolen, linen and jute are included. It is further stated that all the articles on the subject of yarn diameters and fabric structure by the above authors, as well as some additional manuscript, are to be published in book form shortly by MacMillan. (S)

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THE MEASUREMENT OF WHITENESS WITH A PHOTO-CELL.- S. Buhring.
Mell. Textilber., Feb., March and April, 1932.

A series of articles which are to be continued and which are concerned with the measurement of whiteness by means of optical equipment, notably thru the use of a photo-cell. Numerous charts, diagrams, etc., illustrate what appears to be a very complete and careful piece of work. Certain data are given showing the comparison of the whiteness of several types of material, particularly those which have in the past been used as standard white. (S)

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EMULSIFYING AGENTS FOR TECHNICAL USE.- Dr. H. A. Neville.
Am. Silk and Rayon Jnl., July, 1932, P. 45-46.

An interesting discussion of the action of emulsifying agents with the significant chemical theory. Stability, the importance of pH concentration, the effect of hard water, penetration, and economy of time and material are covered. (S)

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THE ACTION OF WETTING AGENTS ON THE PHYSICAL AND CHEMICAL PROPERTIES OF CARBONIZING BATHS.- E. Schmidt.
Tiba, 1931, 9, 1309-13.

The addition of "Oranit K.S.N." to carbonizing baths has the advantages of freeing the wool of impurities which hinder carbonizing, protecting the fibre with improvement in softness and elasticity, and increases the wetting and penetrating power of the bath, permitting a decrease in the amount of acid by 25-30% and avoiding the formation of stains caused by unequal distribution of acid on the fibres. (Copied complete from Chem.Abs., 1932, 26, 1792.) (W)

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A SHORT METHOD FOR CALCULATING MOISTURE PERCENTAGES.- Nelson McKaig, Jr.
Science, June, 10, 1932, P. 612-614.

A method is outlined for determining percentage of moisture or regain in various kinds of samples where the weighing bottle plus the material is considered as the specimen. The operations involved call for manipulation of typical calculating machines and it is claimed that a great deal of time is saved and that the number of necessary operations in the calculation are greatly reduced. While textile examples are not given it would seem probable that the application might be made to textile work as well. (S)

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ABSORPTION SPECTRA OF LIGNIN SOLUTION.- A.J.Stamm, Joseph Semb and E.E.Harris.
J. Phys. Chem., May, 1932, P. 1574.

While the work discussed in this article was concerned largely with the analysis of wood, several of the conclusions are worthy of note. The authors state that cellulose and other carbohydrates show no characteristic light absorption even in the short wave length ultra-violet. Lignin solution gives characteristic light absorption bands in the ultra-violet. There is a possibility of using spectroscopic methods in connection with the microscope for the study of this sort of work in connection with textile research. (S)

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THE POLARISING MICROSCOPE IN COLLOIDAL CHEMISTRY.- E.R. Crystall.
The Industrial Chemist, April, 1932, P. 144-145.

A very brief description of polarised light as used in microscopy introduces the article. The author then continues with application to strain in glass, gelatin, celluloid, etc., together with application in the testing of models of girders and so forth. Wood sections, cellulose fibres, starch grains, and many substances related to textile work may possibly be studied by polarised light. Mention is made of the effect of impregnating fibres of cellulose with fluid of varying reflective indices. It is stated that, if a body is built up of rod-shape, or disk-shape particles, arranged with their geometric axes parallel, and if the spaces between are small compared with the wave length of light, the complex resulting structure will be doubly reflecting, although the particles in themselves may be isotropic. It is further pointed out that, when the indices are equal, the double refraction will be zero and the double refraction reduces to a minimum as the difference between the indices changes. As an example of textile application see tests by Ambronn giving the results obtained on the nitration of ramie. The final portion of the article comments on the use of accessory equipment such as quartz wedges, etc. The paper is short, but interesting in a number of places. (S)

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DICARBOCYANINES. NEW SERIES OF CYANINE DYES.- Stanley Beattie, J.M. Heilbron, F. Irving.
Ibid, 1932, P. 260-8.

New dyes possessing sensitizing value for photography and tinctorial properties for fabrics are described. (W)

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STABILITY OF WETTING AGENTS IN AQUEOUS SOLUTION.- H.Markert.
Monatschr. Textil. Ind., 1931, 46, 209-11.

Forty different agents were studied in two different concentrations. In no case was a decrease in wetting power observed until at least three weeks after preparation of the solution. (W)

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PINK - ROT OF WOOL.- R. Waters Massey.
New Zealand J. Agr., 1932, 44, 55-8.

Discussion of an organism that promises to be a convenient agent for studying the cellulose structure of the wool fibre. (W)

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THE CELLULOSE ETHERS.- Chas. E. Mullin and Howard L. Hunter.
Chemical Markets, 1932, 30, 244-8.

Review and discussion of literature and patents covering history, general reactions and methods of preparation of cellulose ethers. (W)

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THE TINCTORIAL ACTION OF SUBSTANCES HAVING A SURFACE ACTIVITY ON NAPHTHOLS OF THE AS GROUP.- H. Gerstner.
Tiba,1932, 10, 139-43.

The superiority of 'Lcorit,' the sodium salt of a sulfonated aliphatic alcohol, over Turkey red oil as protective colloid for naphthols of the AS group, is demonstrated experimentally, particularly as regards resistance to the action of alkalies, alkaline earth salts and acids. (Copied complete from Chem. Abs., 26, 2867.) (W)

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CYANINE DYES AND RELATED COMPOUNDS.- F. M.Hamer, J. M.Heilbron, J. H. Reade and N. N. Walls.
J. Chem. Soc., 1932, P. 251-60.
(W)

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LX. THE RELATION BETWEEN THE CHAIN LENGTH OF FIBRE MOLECULES AND THE SPECIFIC VISCOSITY OF THEIR SOLUTIONS.- L. Standinger.
Ber., 65B, 1932, P. 267-79.
(W)

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CELLULOSE DYESTUFF COMPLEX. I. STRUCTURE OF CELLULOSE FIBRES.- J. M. Preston.
J. Soc. Dyers and Col., 1931, 47, 312-9.

A study and explanation of the 'dichroic constant' which from theoretical results is deduced to be a function of the degree of orientation of the cellulose structure. Tension applied to the long axis of a fibre during dyeing and drying is found to increase the dichroic constants in slightly oriented structures. (W)

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LIX. LAWS OF VISCOSITY FOR HIGHERLY POLYMERIZED COMPOUNDS.- L. Standinger.
Helv. Chim. Acta 15, 1932, 213-21; cf. C. A. 26, 1848.
(W)

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BLEACHING WITH HYPOCHLORITES.- A. Rins Y Miro.
Rev. Acad. Ciene. Madrid, 1931, 26, 142-72.

Relationships between the electromotive force of platinum electrodes immersed in solutions of hypochlorites, the time of bleaching of a dye (methyl orange) and the pH of solutions; also the relation between tensile strength of cotton, pH of bleaching solutions, etc., are discussed. (W)

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THE LOSS IN WEIGHT OF COTTON TREATED WITH HYDROGEN PEROXIDE COMPARED TO THAT IN WHITENING BY BOILING AND CHLORINATION.- W. Schramek and C. Schubert.
Rev. Gen. Mat. Color. 1932, 36, 109-10.

Discusses the advantage of the peroxide method. (W)

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POROSITY - PRIMARY PROPERTY OF TEXTILES. V. POROSITY OF FABRICS AND PENETRATION PROBLEMS.- J. Schofield.
J. Soc. Dyers and Col., 1931, 47, 166-8.

Study of the role of cloth meshes and yarn interspacial channels in penetration and porosity. (W)

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AZO DYES AND THEIR INTERMEDIATE PRODUCTS. VIII. o - DISAZO DYES. IX. COMPARISON OF ABSORPTION SPECTRA. X. PERI-DISAZO DYES.- Paul Ruggli and Alfred Courtin.
Helv. Chim. Acta 15, 1932, 75-108, 110; cf. Chem. Abs., 25, 4710.

The preparation and properties of a large number of new o - disazo dyes and related compounds are described. New peri-disazo dyes were also prepared. (W)

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MEASUREMENT OF COLOR OF DYED TEXTILES. IX. INFLUENCE OF CONCENTRATION OF DYESTUFF AND TIME OF EXPOSURE ON FADING.- P. W. Cunliffe and Phyllis N. Lambert.
J. Soc. Dyers & Col., 1932, 48, 59-66; cf. Chem. Abs., 25, 5772.

Mathematical and empirical formulas are derived. (W)

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HOLLOW ACETATE RAYON.- H. Schupp.
Kunstseide, 1931, 13, 424-9.

Description of a new type of rayon with its advantages. (W)

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FLAME PROTECTIVES FOR RAYON.- Karl Michsch.
Kunstseide, 1932, 14, 64-6.

A review and discussion from a forensic standpoint. (W)

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SIZE FOR RAYON.- C. H. Fischer.
Kunstseide, 1932, 14, 52-4.

A general article on preparation of size for rayon. (W)

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SIZING OF RAYON.- G. Rudolph.
Kunstseide, 1932, 14, 14.

Discussion of a trade product, Ortoxin K. (W)

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NEW DYES FOR ACETATE RAYON.- Geo. Rudolph.
Kunstseide, 1932, 14, 17-18.

A discussion of the properties and use of seven new celliton dyes particularly suitable for dyeing cellulose acetate rayon. (Copied complete from Chem. Abs., 26, 2867). (W)

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FILMS AND FIBRES DERIVED FROM CELLULOSE.- Herbert Levinstein.
Trans. Inst. Chem. Eng., 1930, 8, 24-37.
(W)

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EXTENSIBILITY AND TENSILE STRENGTH OF FIBRES.- K. Atsuki.
Kunstseide, 1931, 13, 392-3.

Description of new apparatus for determining and recording photographically these characteristics. (W)

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NAPHTHOL A.S. DYES.- Geo. Rudolph.
Kunstseide, 1932, 14, 83-85; cf. Chem. Abs., 25, 3840.

A description of the most recently developed dyes of this class. (W)

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CHEMICALS IN THE DRY-CLEANING INDUSTRY.- C. J. S. Warrington.
Can. Chem. Met., 1932, 16, 39-40, 42; cf. Chem. Abs., 26, 1793.

Spotting agents, oxidizing and reducing agents and solvents are discussed. (W)

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AN EMPIRICAL CLASSIFICATION OF VAT DYESTUFFS.- C. M. Whittaker.
J. Soc. Chem. Ind., 1932, 51, 667.

Vat dyestuffs are classified according to the degree of dyeing imparted to 150-21 and 150/36 denier viscose yarn, the three classes are typified by Caledon Olive R, Alizanthrene Golden Orange b, and Ciba Brown 2R, respectively. (W)

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OCCURRENCE AND DETECTION OF CERTAIN FAULTS IN TEXTILE FABRICS.- O. S. Rhodes.
Chem. and Ind., 1932, 51, 179-80.

The effect of sulfurous acid on cotton dyed with indanthrene blue, effect of storage of aniline black dyed cotton with mercerized fabrics, and of indanthrene yellow on artificial silk, are discussed. (W)

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TESTING OF RAYON.- H. W. Ellinger.
Kunstseide, 1931, 13, 407-8; 14, 33-5; cf. Chem.Abs., 26, 2869.

Description of a special ultra-violet lamp with analytical filter attachment for the examination of textile materials. (W)

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INDANTHRENE DYES.- Geo. Rudolph.
Kunstseide, 1932, 14, 50-51; cf. Chem. Abs., 25, 3840.

A description of the new dyes of this class that were brought out during 1931, including dyeing procedures. (W)

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THE SWELLING OF CELLULOSE ACETATE RAYON BY SOME AQUEOUS SOLUTIONS.- L. Meunier and G. Revillon.
Chim. et Ind., 1932, 27-251-62; cf. Chem. Abs., 23, 4076-7.

Studies of the swelling and deacetylation of cellulose acetate in aqueous solutions of aniline, pyridine, formic acid, acetone, thiocyanate solutions, etc. (W)

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TROUBLES IN THE SIZING AND DYEING OF RAYON.- Brugere.
Bull. Ann. Assoc. Chim. Ind. Text., 1930, P. 58-63; Chim. et Ind., 26, 407.
(W)

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THE AROMATIC WETTING AGENTS. II.- Chas. E. Mullin and A. Richey Ramseur.
Textile Colorist, 1931, 53, 445-449.
(W)

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METHODS OF DETERMINING THE ISOELECTRIC POINT OF GELATIN.- G.P. Faerman.
Zhur. Prikladnoi Khim., 1931, 4, 321-323.
(W)

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HISTORY OF THE DISCOVERY OF THE AMINO ACIDS.- H. B. Vickery and C. L. A.Schmidt.
Chem. Reviews, 1931, 9, 169-318.
(W)

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EVOLUTION OF OLEINS USED IN THE TEXTILE INDUSTRY.- E. Schlenker.
Monatschr. Text. Ind., 1931, 46, 97-98.
(W)

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COMBATING CORROSION IN THE TEXTILE INDUSTRY.- Ray Cottrell.
Textile World, 1931, 79, 1008.
(W)

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CONTINUOUS MEASUREMENT OF pH WITH QUINHYDRONE ELECTRODES.- C. C. Coons.
Ind. Eng. Chem., Anal. Ed., 1931, 3, 402-7.
(W)

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DETERMINATION OF THE VISCOSITY OF STARCH USED FOR DYEING AND SIZING.- W. Obst.
Monastsch. Text. Ind., 1931, 46, 105-6.
(W)

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THE COLORING MATTERS OF RAW COTTON.- H. A. Turner.
Textile Mfr., 1931, 57, 106-7.
(W)

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LUBRICATION OF RAYON.- V. D. Freeland.
Textile Mfr., 1931, 57, 284.
(W)

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SWELLING OF CELLULOSE IN ALKALI.- Giiti Saito.
J. Soc. Chem. Inc., Japan, 1931, Suppl. Binding, 34, P. 437-44.
Measurements of the change in cross-sectional area and length of viscose fibres in water and various concentrations of alkali. (W)

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THE CHEMISTRY OF OXIDATION FUR DYEING. II.- Wm. E. Austin.
J. Tech. Assoc. Fur. Ind., 1931, 2, 63-74.
(W)

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HISTORY AND DEVELOPMENT OF THE SYNTHETIC YARNS INDUSTRY.- Chas. E. Mullin.
Southern Textile Bulletin, 1931, 40-1, 30-1, 39-60, 64-65.
(W)

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CHEMISTRY OF THE VEGETABLE TEXTILE FIBRES. II. THE PARTICULAR CHARACTERS OF THE PRINCIPLE VEGETABLE TEXTILE FIBRES.- A. Julia Sauri.
Quim e Ind., 1931, 8, 204-7.
(W)

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THE SIZE OF SAMPLES FOR DETERMINING FIBRE PROPERTIES.- Ram Saraw Koshal and A. James Turner.
Textile Mfr., 1931, 57, 95.
(W)

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APPLICATION OF NACELAW DYES TO ACETATE SILK.- W. A. Holst.
Dyestuffs, 32, 25-32; Textile Colorist, 1931, 53, 481-84.
(W)

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PRESENT STATUS OF OUR KNOWLEDGE OF THE DYEING OF VISCOSE WITH DIRECT AND VAT DYES.- J. Clarou.
Russa, 1931, 6, 1547, 1549, 1721, 1723.
A brief review. (Copied complete from Chem. Abs., 1932, 26, 1791.) (W)

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DESIZING OF RAYON.- Karl Walter.
Kunstseide, 1931, 13, 302-3.
Methods for analysis of rayons and sizes are given and on the basis of the results obtained the desizing procedure is chosen. (Copied from Chem. Abs., 1932, 26, 1791.) (W)

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OXYCELLULOSE IN THE DYEING OF COTTON PIECE GOODS.- J. Ernest.
Monatschr. Textilber., 1931, 46, 66; Chim. et Ind., 26, 675.
A brief discussion of some of the troubles caused by oxycellulose in the piece-dyeing of cotton. (Copied complete from Chem.Abs., 1932, 26, 1790.) (W)

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ELECTROCOLLOIDAL THEORY OF DYEING.- L. Rinoldi.
Boll. Lanera, 1931, 45, 589-93.
With indigo and many other colors dyeing is an adsorption phenomenon, due to adhesion, contact and porosity, not to chemical combination. Effects of osmosis, of swelling of the fibre, and of coagulation, are discussed. (Copied complete from Chem. Abs., 1932, 26, 1791.) (W)

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THE SIZING OF RAYON.- P. Sisley, Jr.
Russa, 1931, 6, 803-9, 965-9, 1115, 1117, 1535-9.
A review, chiefly of patents. (Copied complete from Chem. Abs., 1932, 26, 1791.) (W)

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WEIGHTING OF RAYON.- Karl Swoboda.
Kunstseide, 1931, 13, 300-2.
The use of tin phosphate and of barium sulfate for weighting rayon is discussed. (Copied from Chem. Abs., 1932, 26, 1791.) (W)

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DYES DERIVED FROM THIOHYDANTOIN II.- V. G. Namjoshi and S. Dutt.
J. Indian Chem. Soc., 1931, 8, 241-6; cf. Chem. Abs., 25, 3839.
A number of new dyes for wool, silk and cotton were prepared, shades ranging from yellow to orange red. All are tabulated with their crystal appearance, wave length of absorption maxima and shade on wool and silk. (Copied from Chem. Abs., 1932, 26, 1790.) (W)

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NATURE OF COTTON PIGMENT.- A. Oparin and S. Rogowin.
Mell. Textilber., 1930, II, 944-6.
The pigment of raw cotton is at least genetically related to chlorogenic acid, previously identified in cottonseed. A general review of literature on coloration of raw cotton is given. (Copied complete from Chem.Abs., 1932, 26, 1637.) (W)

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THE TESTING OF LAUNDERED FABRICS.- R.E.V. Hampson.
Textile Manufacturer, June, 1932, P. 221.
Suggestions are made for fabrics to be marked and designed as suitable for standard processes of laundering which might be laid down. (S)

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PRESENT STATUS OF RAW SILK CLASSIFICATION.- D. E. Douty.
Am. Silk and Rayon Jnl., July, 1932, P. 47-52.

Continuation of a discussion of silk classification. (S)

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CHEMICAL TESTS IN THE WOOL INDUSTRY.- Edgar Hill.
J. T. I., June, 1932, P. 124-139.

A paper presented at the annual conference of the Institute at Leamington. The paper reviews briefly the various chemical tests relative to wool and its manufacture. (S)

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NATURAL SILK SOLUTIONS.
Am. Silk and Rayon Jnl., July, 1932, P. 62.

A very brief comment on a German invention which obtains a spinning solution of natural silk waste in phosphoric acid coagulated in aqueous sodium chloride. Filaments by this process are heavily stretch-spun. (S)

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TECHNOLOGY OF CELLULOSE ACETATE.- Dr. Aladin.
Plastics and Molded Products, 1931 and 1932, Vol. 7 and 8.

The series was begun in March, 1931, and comprises a review of 235 patents issued during the past ten years. The material is broken down to the following headings: Apparatus, heat treatment, catalysis, acetylation, hydrolysis, finished products. The articles conclude in the April, 1932, issue with an index of the patents included in the series together with their serial numbers. (S)

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WOOLEN RING SPINNING.- Howard Price Galloway.
Textile World, June, 1932, P. 72-73.

Woolen ring spinning, as conducted today, is so recent a development that comparatively little has been written about it from the viewpoint of the practical spinner. Hence this paper, which was presented at the 31st Annual Meeting of the Alumni Association of the Philadelphia Textile School, is of particular importance. Mr. Galloway relates some of the difficulties which were encountered by the mill with which he is connected when it first adopted the frame method and tells how they were overcome. He also describes the spinning operation itself and lists the advantages which the mill has realized. (S)

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NOTES ON THE DEVELOPMENT OF A CLASSIFICATION OF RAW SILK BASED ON THE MECHANICAL TEST.- W. F. Edwards.
Am.Silk and Rayon Jnl., July, 1932, P. 53-57.

The final part of an excellent series of articles including a number of most informative charts concerned with the relation of seriplane tests to knitted fabrics. (S)

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THE POROSITY OF TEXTILES.- G. Barr.
Textile Manufacturer, June, 1932, P. 221.

Several factors influencing the resistance offered by textiles and other porous materials to the passage through them of air and other gases are mentioned. It is stated that velocity used is an important item but that the difference in pressure on the two sides of a fabric may amount to only 5 mm. of water column. For this reason it is desirable that tests on such materials be made under very small heads. (S)

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